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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/546,971	04/11/2000	Johannes H.M. Spruit	PHN 17 , 408	4167

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EXAMINER
ORTIZ CRIADO, JORGE L

ART UNIT	PAPER NUMBER
2697	7

DATE MAILED: 07/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/546,971	Applicant(s) SPRUIT ET AL.	
	Examiner Jorge L Ortiz-Criado	Art Unit 2697	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 9* is/are rejected.

7)☒ Claim(s) *8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 April 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

   - In Fig. 7, reference # 72.

   A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to because in Figs. 2 and 9 descriptive labels should be provided. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without

underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
(e) BACKGROUND OF THE INVENTION.
(1) Field of the Invention.
(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(f) BRIEF SUMMARY OF THE INVENTION.
(g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(h) DETAILED DESCRIPTION OF THE INVENTION.
(i) CLAIM OR CLAIMS (commencing on a separate sheet).
(j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 9 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 9 recites the broad recitation "digital or analog inputs signals", and the claim also recites "audio and/or video" which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

· The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claim 1-4, 6-7 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Nagara et al. U.S. Patent No. 6,147,957.

Regarding claim 1, Nagara et al. discloses a method of recording information in units on a record carrier having a track for consecutively recording the information units at addressable locations (See col. 1, lines 47-57; col. 4, lines 29-46; Figs. 2,3,7,13),

the information being represented in the track by series of marks of different runlengths between a minimum runlength (3T) and a maximum runlength (11T) and synchronizing patterns of marks which patterns do not occur in the series of marks (See col. 1, lines 47-57; col. 4, lines 17-51; Figs. 2,3,5,6,7,13),

and comprise at least one long mark of at least the maximum runlength (11T) (See col. 1, lines 47-57; col. 4, lines 17-51; Figs. 2,3,5,6,7), said method comprising:

(a) encoding at least one information unit into a modulated signal comprising signal elements corresponding to said marks (See col. 4, lines 9-12; col. 6, lines 15-29; Fig. 3,5,6,7),

(b) scanning said track up to a link position before a selected one of said addressable locations (See col. 4, lines 9-51; col. 6, lines 15-29; Fig. 3,5,6,7), and

(c) recording the modulated signal from the link position, characterized in that (See col. 4, lines 9-51; col. 6, lines 15-29; Fig. 3,5,6,7)

(d) the modulated signal is provided at the begin and/or at the end with a link signal element corresponding to a link mark of at most the minimum runlength (2T) (See col. 4, lines 9-51; col. 6, lines 15-29; col. 7, lines 33-37; Fig. 3,5,6,7).

Regarding claim 2, Nagara et al. discloses wherein the link signal element corresponds to a mark shorter than the minimum runlength (2T) (See col. 7, lines 33-37; Fig. 6).

Regarding claim 3, Nagara et al. discloses a device for recording information in units on a record carrier having a track for consecutively recording the information units at addressable locations (See col. 1, lines 5-57; col. 4, lines 29-46; Figs. 1,2,3,7,13),

the information being represented in the track by series of marks of different runlengths between a minimum runlength (3T) and a maximum runlength (11T) and synchronizing patterns of marks, which patterns do not occur in the series of marks (See col. 1, lines 47-57; col. 4, lines 17-51; Figs. 2,3,5,6,7,13)

and comprise at least one long mark of at least the maximum runlength (11T) (See col. 1, lines 47-57; col. 4, lines 17-51; Figs. 2,3,5,6,7,13),

said device comprising encoding means for encoding at least one information unit into a modulated signal comprising signal elements corresponding to said marks (See col. 4, lines 9-12; col. 6, lines 15-29; Fig. 1,3,5,6,7) ,

and recording means for scanning said track up to a link position before a selected one of said addressable locations and recording the modulated signal from the link position (See col. 3 line 31 to col. 4, line 51; Fig. 1),

characterized in that the encoding means are arranged for providing the modulated signal at the begin and/or at the end with a link signal element corresponding to a link mark of at most the minimum runlength (2T) (See col. 4, lines 9-51; col. 6, lines 15-29; col. 7, lines 33-37; Fig. 3,5,6,7).

Regarding claim 4, Nagara et al. discloses wherein said runlengths are expressed in steps of a channel bit (See col. 1, lines 47-57; col. 4, lines 17-51; Figs. 2,3,5,6,7,13),

and the encoding means are arranged for providing the link signal element corresponding to a link mark one channel bit shorter than the minimum runlength (2T)(See col. 7, lines 33-37; Fig. 6).

Regarding claim 6, Nagara et al. discloses wherein the encoding means comprise synchronizing means for providing the synchronizing pattern having said at least one long mark followed by a short mark of a runlength shorter than the maximum runlength (See col. 4, lines 9-12; col. 6, lines 15-29; col. 7, lines 33-37; Fig. 3,5,6,7)

and the encoding means are arranged for providing a second link signal element after the link signal element at the begin of the modulated signal, the second link signal element corresponding to a mark differing from the short mark (pattern 1, 3T) (See col. 4, lines 9-12; col. 6, lines 15-29; col. 7, lines 33-37; Fig. 3,5,6,7).

Regarding claim 7, Nagara et al. discloses wherein the encoding means comprise means for variably selecting one out of a set of fixed linking sequences that each start with the link signal element followed by further signal elements for recording marks up to the first synchronizing pattern (See col. 4, lines 9-51 ; col. 6, lines 15-29; col. 7, lines 33-37; Fig. 3,5,6,7)

substantially half of the linking sequences of the set having an odd number of mark boundaries (first half 3T odd, second half 2T) (See col. 4, lines 9-57; col. 6, lines 15-29; col. 7, lines 33-37; Fig. 3,5,6,7).

Regarding claim 9, Nagara et al. discloses wherein the device comprises means for processing or compressing digital or analog input signals such as audio and/or video to units of information (See col. 4, lines 9-12; col. 6, lines 15-29; col. 7, lines 33-37; Fig. 3,5,6,7).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

· having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagara et al. U.S. Patent No. 6,147,957 in view of Tanaka et al. U.S. Patent No. 5,881,037.

Regarding claim 5, Nagara et al. discloses all the limitations based on claim 3 as outlined above. Nagara et al. further discloses wherein the encoding means comprise synchronizing means for dividing said at least one long mark in the synchronizing pattern; at a runlength longer than the of the maximum runlength (11T) (See col. 1, lines 47-57; col. 4, lines 17-51; Figs. 2,3,5,6,7)

Nagara et al. fails to disclose dividing said at least one long mark in the synchronizing pattern; at a runlength longer than the sum of the maximum runlength and the runlength of the link mark.

However this feature is well known in the art as evidenced by Tanaka et al., which discloses synchronization pattern including at least one long mark in the synchronizing pattern; at a runlength longer than the sum of the maximum runlength and the runlength of the link mark (See col. 9, line 45 to col. 10 lines 1-67).

Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to include at least one long mark in the synchronizing pattern; at a runlength longer than the sum of the maximum runlength and the runlength of the link mark, in order to discriminate the synchronization from the other data such as video and/or audio as suggested by Tanaka et al.

Allowable Subject Matter

7. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

   a. U.S. Patent No. 6,52,838 to Kuroda et al., which discloses an information recording apparatus for recording information in units.

   b. U.S. Patent No. 2,208,603 to Ishida et al., which discloses an optical reproduction/recording signal by modulating the signal including a code including a long mark larger than the maximum run length.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L Ortiz-Criado whose telephone number is (703) 305-8323. The examiner can normally be reached on Mon.-Thu.(8:30 am - 6:00 pm),Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris H To can be reached on (703) 305-4827. The fax phone numbers for the

organization where this application or proceeding is assigned are (703) 308-6743 for regular communications and (703) 308-6743 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

joc
July 25, 2003

DORIS H. TO 7/28/03
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600